

**BCM SCHOOL, BASANT AVENUE, DUGRI ROAD,
LUDHIANA**

CLASS – VIII

SUBJECT – SCIENCE ASSIGNMENT ANSWERKEY

**CHAPTERS – FRICTION | CHEMICAL EFFECTS OF
ELECTRIC CURRENT | SOUND | REPRODUCTION |
REACHING THE AGE OF ADOLESCENCE**

SECTION – A (MCQs & Assertion/Reason)

1. (b) Rubber increases friction due to better grip

2. (b) Carbon electrodes in salt solution

(Salt solution is a strong electrolyte → strongest chemical effect)

3. (b) Amplitude

(Loudness depends on amplitude, not pitch.)

4. Assertion–Reason

Assertion: Girls generally enter puberty earlier than boys.

Reason: Hormonal changes begin at different times in different individuals.

✓ Correct Answer: (A)

Both are true and Reason correctly explains Assertion.

5. Assertion–Reason

Assertion: Internal fertilisation provides better chances of embryo survival.

Reason: The embryo is protected inside the mother's body during development.

✓ Correct Answer: (A)

Both statements are true and Reason explains Assertion.

SECTION – B (Short Answers)

6. Echo in halls but not in classrooms

Large empty halls have hard, smooth surfaces → reflect sound strongly → clear echoes.

Furnished classrooms have curtains, furniture, soft boards → absorb sound → no echo.

7. Bicycle moving slowly on muddy ground

- a) Type of surface: Muddy surface is irregular → more friction → slower motion.
- b) Rolling vs sliding friction: Mud increases sliding friction on tyres → more resistance.
- c) Lubricants: Oil on chain reduces friction → smoother, faster pedalling.

8. Electrolysis of copper sulphate

Ion movement: Cu^{2+} ions move to the cathode, SO_4^{2-} to the anode.

Discharge of ions: Cu^{2+} gains electrons → becomes copper metal.

Deposition: Copper deposits on cathode → fading of blue colour.

Importance: Used in electroplating to protect metals (jewellery, taps, tools).

9. Changes in a 13-year-old

- a) Hormonal changes: Increased secretion of testosterone/estrogen.
- b) Secondary sexual characteristics: Height, muscles, voice change, hair growth.
- c) Endocrine system: Pituitary stimulates other glands.
- d) Hygiene & diet: Prevent infections, ensure healthy growth, manage sweat/oily skin.

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SECTION – C (Case Study)

10.

1. Friction Zone:

Sandpaper → highest friction

Polished tiles → least friction

Roughness determines friction.

2. Electric Conductivity Table:

Lemon juice (acidic electrolyte) → high conductivity → bulb glows bright

Tap water → fewer ions → dim glow.

3. Sound Station:

Metal rod vibrates with larger amplitude → louder sound

Metals transmit sound better than wood.